Diese Website verwendet Cookies von Google, um Dienste anzubieten und den Traffic zu analysieren. Deine IP-Adresse und dein User-Agent werden zusammen mit Messwerten zur Leistung und Sicherheit für Google freigegeben. So können Nutzungsstatistiken generiert, Missbrauchsfälle erkannt und behoben und die Qualität des Dienstes gewährleistet werden.

WEITERE INFORMATIONEN OK

An unending variety of topics

Friday, March 23, 2018

The many traditions of non-governmental money (part i)

The central bank of the United States, the Federal Reserve, has put out "educational material" on Bitcoin for teachers and students (including a quiz!). The Bitcoin parts are odd enough, but this and a subsequent blog post will focus on the following statement: "traditionally, currency is produced by a nation's government." Is that a fair representation of monetary traditions? At the very least it is quite incomplete. This two-part series will proceed back in time, showing some of the many examples non-governmental money, in order to fill in some of the gaps.

Privately issued IOUs and privately minted coins are covered here in part (i) of the series. These IOUs can more specifically be described as bearer promissory notes, and even more specifically, when issued by banks, bank notes.

The Bitcoin public blockchain implements a global settlement layer ("layer 1" in bitcoin parlance). The closest historical analog to the Bitcoin settlement layer is not to the bank notes, nor even to the coins (despite its name), it is to the monetary metal that for most of monetary history from ancient civilization to the 20th century ultimately underlay the IOUs. This "metal layer" of historical money systems will be covered in part (ii) of this series, as will some even more ancient forms of non-governmental money.

Bank notes

Higher layers of the bitcoin ecosystem, which can include exchanges (centralized or decentralized) as well as more trust-minimized systems such as Lightning, correspond most

Pages

- Home

About Me

Nick Szabo

"A premier thinker about history, law and economics, and the lessons they have for security." -- Adam Shostack, Emergent Chaos

"Szabo comes out with these essays that leave me in awe." -- Brian Dunbar

"Reading material that is eclectic, challenging and endlessly fascinating." -- Sean McGrath, Propylon

"Like most blogs worth my attention, this blog is updated only infrequently. That is because the authors of blogs worth my attention only post when they have something to say that is true, relevant and not already known by their audience. Most of the human race does not have the skill to know when an idea has these three properties. The skill is particularly rare in the fields of politics and economics, which is why this blog is such a rare and valuable thing." -- Richard Hollerith

View my complete profile

closely in our rough historical analogies to checking accounts (which, although often counted by economists as part of the money supply, and not created or managed by governments, will be so familiar to most readers that they will not be covered in this series) and to private bank notes. In these higher layer monetary systems, a more computationally (or for bank notes physically) efficient medium is substituted for a less efficient medium (for bank notes, often the underlying metal), usually (as is the case with checking accounts, bank notes, and centralized bitcoin exchanges alike) at the cost of increasing trust and thus vulnerability and risk in the system.

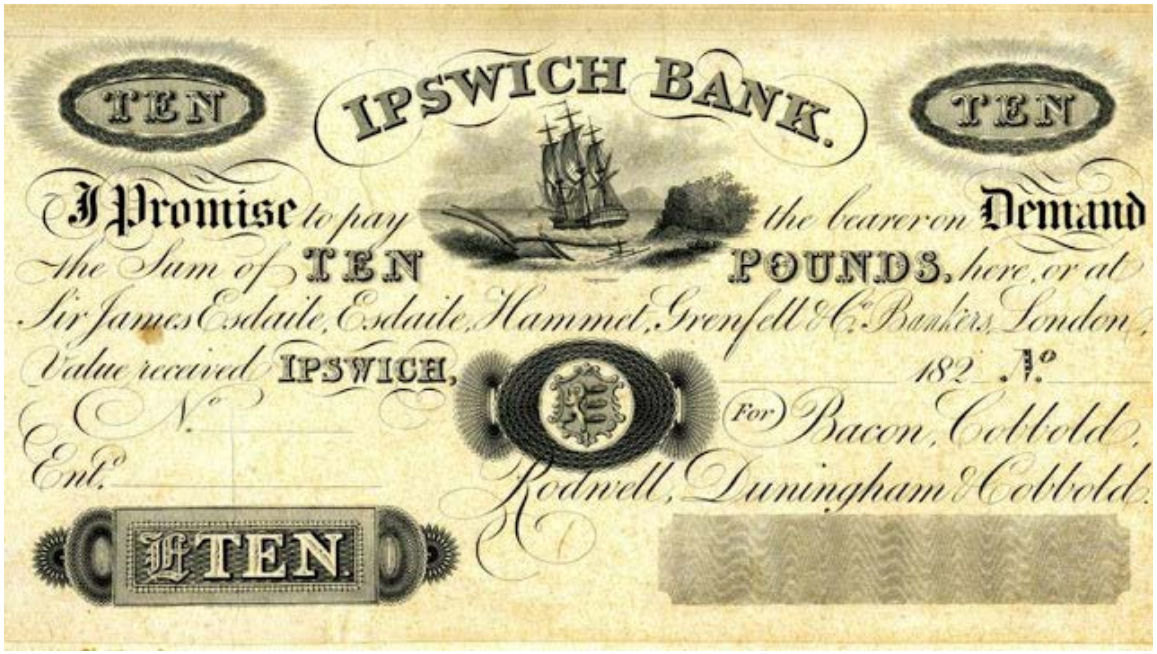
Bank note (bearer promissory instrument) issued by the North of Scotland Bank, 1945. Many banks besides central banks have issued bank notes that circulated as currency. George Selgin and Lawrence White among others have done extensive work in this area. Knowledge of the long history of non-governmental money was one of the inspirations of the original invention of trust-minimized cryptocurrency. This practice continues to this day in Hong Kong and Scotland.

Blog Archive

- ▼ 2018 (1)
  - ▼ March (1)
    - The many traditions of non-governmental money (par…
- ► 2017 (3)
- ► 2016 (4)
- ► 2015 (3)
- ► 2014 (3)
- ► 2013 (3)
- ► 2012 (8)
- ► 2011 (12)
- ► 2010 (9)
- ► 2009 (29)
- ► 2008 (55)
- ► 2007 (47)
- ► 2006 (130)
- ► 2005 (44)

Stockholms Enskilda Bank note, Sweden, 1876. Critics have said that decentralized note issue, following the same principles of fractional reserve and maturity mismatch as central banks, were just as or more prone to runs on the bank. Defenders have argued that competition between note-issuing banks formed a peer-to-peer system where banks could redeem competitors' notes, making it more reliable and robust form of fractional reserve banking than a central bank run or managed fractional reserve.

Hong Kong & Shanghai Banking Corporation (HSBC) bank note, 2009.



Ipswich Bank, a "country" (non-London) bank in England, 1820s (this instance unissued).

Traditionally country banks, like the Bank of England, redeemed for specie, i.e. the official coin, which contained a standard weight of monetary metal (usually in this era silver). After 1833, Bank of England notes became legal tender which holders of country bank notes had to accept in lieu of specie.

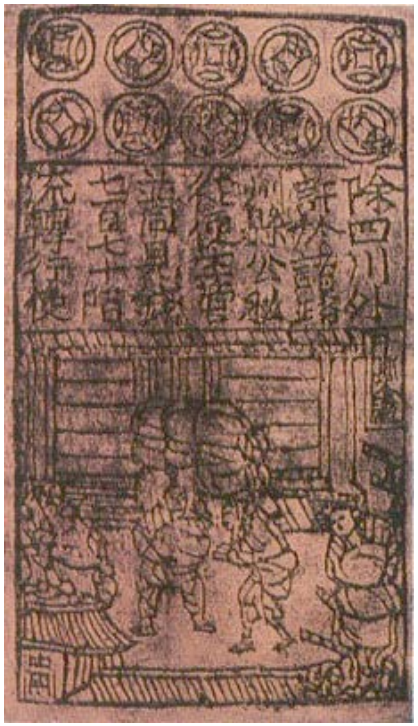
Bank of Prince Edward Island note, Canada, 1871

Mechanic's Bank note of 1856, Augusta, Georgia. Before our Civil War, most paper money in the United States was privately issued.

Boone County Bank note, Lebanon, Indiana 1858. "During this era the U.S. had no central bank and paper money was issued by a variety of private banks. Some was even issued by manufacturing and retail companies. This money was backed by gold, silver, real estate, stocks, bonds, and a wide variety of other assets. You can no longer cash them in, but they are now worth often substantial sums as collectibles...the note designs were more varied and creative than modern money, and were remarkably free of politicians' faces." Source

Bank of De Soto note, De Soto, Nebraska, 1863. Critics have called this era of U.S. private bank note issue the "wildcat banking" era. Collectors sometimes call surviving private bank notes "broken bank notes", because notes from banks that were quickly or never redeemed are much more likely to have survived in reasonable to excellent condition.

Hagerstown Bank note, Hagerstown, Missouri, 1850s (this instance unissued). Some other scholars within the Federal Reserve remembered the private note-issuing era in the United States; their central bankers' view of it can be found here.



Jiaozi, a bearer promissory note from the Song Dynasty. The earliest jiaozi were issued in Sichuan province by merchants to relieve their fellow merchants of the high costs of transporting the heavy government-issued iron coins.

Gordon Tullock wrote of bearer promissory notes in an earlier time and different part of China,

> By A.D. 700-800 there were shops in China which would accept valuables, and, for a fee, keep them safe. They would honour drafts drawn on the items in deposit, and, as with the goldsmith's shops in Europe, their deposit receipts gradually began to circulate as money. It is not known how rapidly this process developed, but by A.D. 1000 there were apparently a number of firms in China which issued regular printed notes and which had discovered that they could circulate more notes than the amount of valuables they had on deposit. [Source]

Coins

A brass half-penny issued by grocer Edward Nightingale, probably dating from the early 1670s. [Source] While in most times and places, coinage was a royal or otherwise political monopoly, there were a number of important exceptions where coins were minted privately and successfully circulated as currency. Per monetary historian Glyn Davies, during the English Commonwealth, Protectorate, and early Restoration occurred “a vast issue by merchants, manufacturers, and municipalities, between 1644 and 1672, of copper tokens, mostly of farthings and halfpence.” [Davies p243]

Anglesey & Mines druid half-penny, England, 1788. "From 1787 to 1797, private merchants and industrialists issued 600 tons of custom-made 'commercial' copper coin, which was more copper coin than the Royal Mint had supplied during the previous half century." [Source].

Ironbridge coin, minted by Coalbrookdale Works, Shropshire, England, 1782. In the industrial revolution, factories had to attract workers with frequent pay that could be spent at bargain shops. The Royal Mint was not producing low-denomination coins, so factories minted their own or used the coins minted by another firm. A good review by Jeffrey Hummel of George Selgin's excellent analysis of this era here.

Privately minted coins from Sichuan province, China, 1912. While the minting of private coins, especially imitations of official coins, was often banned in order to secure a royal or other political monopoly, the industrial revolution was not the only time or place where private entities minted. Private coinage was by no means even limited to the Anglosphere. Nevertheless, the vast majority of coins in the numismatic record were minted by or under the license of kings, emperors, elected officials, and other kinds of political leaders, and these are also the kinds of coins prized by political historians as the most durable records of a leaders' reign.

In part (ii) of this series we will explain and give a few examples of the monetary metals themselves, usually mined and processed by private entities. For most of monetary history, from ancient civilization until recent times, the monetary metals were the ultimate "O" in the IOUs -- the substances that bearer promissory notes were most often redeemed for -- and constituted the most common contents of the coins themselves. The various forms into which monetary metals could be shaped, including coins, were sampled and assayed for their metal content when used outside of the locale where they were issued or covered by legal tender laws.

Part (ii) will also explain why these metals, not any of their particular forms, are the closest analog we have to Bitcoin in monetary history. Finally, we will cover some the many other forms besides coins that these metals could take, the monetary and quasi-monetary functions of these forms, and get some glimpses of even more ancient forms that were the common ancestors of modern money and modern jewelry. Part 2 can only scratch the surface of this vast topic and will refer the reader to more in-depth works including those of this author.

Posted by Nick Szabo at 10:54 AM

14 comments:

Jim Bowery said...

In order to close the theoretic gap between fiat money and private money, a generalized notion of demurrage is critical. The government (supposedly) protects property rights, just as does a precious metals bank protect its deposits from theft -- deposits that back its bearer certificates. In both cases it costs to secure the property. The way this cost gets billed is where things seem to go awry*. Fiat money decouples issuance (source) and taxes (sink) from the liquid value of the property rights the government is supposedly protecting. Banks loan out their deposits at interest to pay the protection costs. Put both of these shenanigans together and you have the Federal Reserve. All of the Fed's noise about adjusting the "money supply" in response to "the demand for liquidity" elides the question: What is the fundamental source of demand for liquidity?

The answer is in the risk-adjusted net present value formula which relates static to dynamic value: The *liquid* value of a property right is calculated from the risk-adjusted net present value of its profit *stream*.

*Cryptocurrency's equivalent of demurrage is the cost of securing the blockchain.

3:47 PM

Colby Serpa said...

Looking forward to part 2!
Who would've thought decentralization and universality would ever be possible simultaneously? Best of both worlds! #Bitcoin

5:08 PM

cinnamon carter said...

An excellent historical perspective. Many people believe (because of the name Federal) that the Federal Reserve is part of the government. In a strict sense the 'notes' issued by the Federal Reserve are along the same lines as the private notes issued by the 'banks' i.e. private parties listed above. No more or less "valid" other than they own a monopoly on the right to lend money to the US Treasury department.

5:18 PM

Anthony Dell said...

Fascinating, Nick, thank you so much for posting this. Can't wait for part is!

6:14 PM

David Merkel said...

You might want to talk about the frequent bankruptcies from private issuers of IOUs. The problem is fractional reserving, and inadequate reserves for losses if an entity lends against uncertain collateral. Think of a pawn shop or a money market fund, and you might get to the right model.

10:55 AM

Twan said...

Was this Hummel's review you were referring to (but didn't link)? http://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=1022&context=econ_pub

2:05 PM

Bitcoin Rat said...

Thanks Nick - will become a great reference source. Can't wait for next installment :-)

5:54 AM

Lon Barfield said...

Very useful thank you. Are you going to say anything about tally sticks? I'm trying to work out if they were a type of transaction recording mechanism that embodied trust in the design.

3:12 AM

David Doswell said...

Excellent. Looking forward to reading Selgin's "Good Money"!

2:07 PM

Joana Guimaraes said...

This comment has been removed by the author.

9:46 AM

Cíntia said...

awesome to see the evolution of the coins very good your post thanks for sharing with us your knowledge

9:48 AM

Ramy said...

With all due respect, as a student of economics, law, and your writing that has been working on mass market adoption of blockchain, I believe you are overlooking a simple detail...

"The closest historical analog to the Bitcoin settlement layer is not to the bank notes, nor even to the coins (despite its name), it is to the monetary metal"

"One of the more common modern legal definitions of “money”, used for laws that facilitate and support financial interchange...is that money can only be an official government currency"

Fiat allowed the government to print off promises of the gold reserves that they no longer had. But while Bitcoin is finite in supply, fiat's variant annual inflation amount (decided by a centralized union of bank and government) is a manipulation of everything in the "governmental monetary system"...

Bitcoin's being finite yet the central financial medium between blockchain and fiat, does this not mean that the "perfect" finite product is being converted into an infinite fiat supply for every day use? This takes away from actual settlement into "metal money". Unless the total metal money supply was recorded from first block.

In a perfect world, that physical/fiat/infinitely printable money would come back into the blockchain. But governments are trying to ensure that fiat only goes into the blockchain for their ownership (centralizing) of it to the fullest possible degree.

To address the eco-blockchain legality conundrum, I believe the ideal possible comparison to equate a cryptocurrency's settlement layer with would be to use your Theory of the Collectibles...many ways it would provide global satisfaction if done with proper communal governance. Simplest being a revival of digital altruism to combat government suppression...

Would be honor to share my thoughts with you. Preparing a dissertation on this and more, much inspired by your past works. My hypothesis is seemingly in direct opposition of your part II. Hoping to hear criticisms on my theories.

11:41 PM

seox joy said...

Do you want to see your website or blog on Google's first page ??? And want to beat your website or blog ranking ?? Your website and blog will be displayed on the first page of Google through the SEO service, completely and beautifully. And get more visitors.

Click this for more details : "SEO services provider"

2:06 AM

Karqa said...

Thank you very much for your good blog
Bedava Sohbet Et
Sohbet Et
Chat yap
Sohbet
Sohbet Siteleri
irc sohbet
mirc Sohbet
Üyeliksiz Sohbet
Bedava Sohbet

Yazışma Siteleri
Konuşma Siteleri
Yetişkin Sohbet Siteleri
irc sohbet siteleri
irc sohbet odaları
mirc sohbet siteleri
Kızlarla Sohbet

1:24 PM

Post a Comment

Home Older Post

Subscribe to: Post Comments (Atom)

Simple theme. Powered by Blogger.